



Questions and Answers About Designating the Rayed Bean, Sheepnose, and Spectaclecase Mussels As Candidates for Listing Under the Endangered Species Act

1. What are the rayed bean, sheepnose, and spectaclecase mussels?

The rayed bean (*Villosa fabalis*), sheepnose (*Plethobasus cyphyus*), and spectaclecase (*Cumberlandia monodonta*) are freshwater mussels found primarily in rivers of the eastern and midwestern United States. The rayed bean is the only one of the three that lives in lakes as well as rivers. It is found in Indiana, Michigan, New York, Pennsylvania, Ohio and in Ontario, Canada. The sheepnose is found in Alabama, Illinois, Indiana, Iowa, Kentucky, Minnesota, Mississippi, Missouri, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin. The spectaclecase is found in Alabama, Arkansas, Illinois, Iowa, Kentucky, Minnesota, Missouri, Tennessee, Virginia, West Virginia, and Wisconsin.

2. What is a candidate species?

Candidate species are plants and animals for which the U.S. Fish and Wildlife Service (Service) has sufficient information on their biological status and threats to propose them as threatened or endangered under the Endangered Species Act (ESA), but whose proposed listing is temporarily precluded by other higher priority listing activities.

3. Why is the Service designating these freshwater mussels as candidates for listing under the Endangered Species Act?

Despite the seemingly large ranges of these mussels, they have declined significantly relative to their historical distributions and their remaining populations tend to be small, isolated, and under continuing threats. The declines of the rayed bean, sheepnose, and spectaclecase mussel populations are primarily due to habitat loss and degradation. Impoundments, stream channelization, chemical contaminants, mining, and sedimentation are the principal reasons for their declines and are ongoing threats to remaining populations. Zebra mussels, small population sizes, and isolation of populations also threaten all three mussel species.

4. What protection is provided to candidate species?

Candidate species receive no legal protection under ESA. There are no prohibitions against taking candidate species. The Service encourages and actively pursues conservation actions for candidate species with private landowners, state and Federal agencies, and other partners.

5. What does candidate designation of these mussels mean to a private landowner?

Designating these mussels as candidates for listing under the Endangered Species Act will not necessarily affect private landowners because the Act does not prohibit the taking of candidate species. This designation, however, may increase funding available for landowners to protect streamside riparian areas and implement management practices beneficial to freshwater mussels and other aquatic species. Private landowners may seek to enter into a candidate conservation agreement with the Service to conserve any candidate species that may occur on their property or be affected by their land management activities.

6. Why are mussels important to the environment and people?

Mussels play an important role in the aquatic ecosystem. Wildlife, including raccoons, otters, herons, and egrets eat mussels. Mussels filter water for food and thus help purify river and lake water. Mussels are usually present in groups called beds that range in size from smaller than a square foot to many acres. Mussel beds create a hard, "rocky" surface on the bottom of rivers and lakes that, in turn, provide habitat for fish, aquatic insects, and aquatic animals.

Freshwater mussels are also important indicators of the water quality of rivers and lakes, including those that we use for our drinking water, irrigation, and recreation. Conserving these mussels will help to ensure that our rivers and lakes are clean enough to perform these essential functions.

7. How do species become candidates for listing under the Endangered Species Act?

Identification of candidate species is a cooperative effort among the Service, other Federal and state natural resource agencies, local and tribal governments, business and industry, universities, conservation organizations and other private interests. If the Service determines that there is sufficient information on a species' biological status and threats to propose it as threatened or endangered it adds it to the list of candidate species. The Service's lead Field Office for the species first makes the recommendation after reviewing the best available scientific and commercial information on the species. The Regional Office then forwards the recommendation to the Director of the Service, who then decides whether or not to concur with the recommendation. If the Director concurs, the species becomes a candidate for listing as threatened or endangered. To guide the order in which species are listed, the Service assigns a listing priority from 1 to 12, based on the magnitude and immediacy of threats to the species and taxonomic considerations (for example, full species have higher priority than subspecies). The species' listing priority determines the order in which species will be proposed for listing as threatened or endangered, with the species at greatest risk and taxonomic uniqueness being proposed first. The rayed bean and sheepnose mussels are listing priority number 2 and the spectaclecase is a listing priority 4.

8. Are there advantages to designating species as candidates for listing before adding them to the list of threatened or endangered species?

Species become and remain official candidates for listing because available funds for listing species are not sufficient to list all of the eligible species at once. An effective program for conservation of endangered and threatened species requires a means to conserve species that are not yet listed, but face immediate, identifiable risks. Designating species as candidates informs the public which species we are planning to propose for protection, encourages conservation, and promotes development that accommodates the needs of candidate species.

9. When the Service goes forward with proposing to list the rayed bean, sheepnose, and spectaclecase as threatened or endangered species, what is the process?

The Service would prepare a document, called a proposed rule, which would be published in the Federal Register and made available for public review. The public would be given at least 60 days to review the proposal and provide us with any comments or additional information. During this 60 day period, we would notify the public that the proposal has been published and explain how to provide us with comments for our review before finalizing our decision. During this time interested individuals may also request public hearings. After the comment period ends, we would consider and analyze all the public comments and make a final decision on whether to list the species as threatened or endangered.

10. What can I do to help conserve freshwater mussels?

- Contact U.S. Fish and Wildlife Service (see below) or your state natural resource agency if you are interested in finding out if freshwater mussels occur on or near your property and, if so, what options may be available to you to conserve the species and its habitat.
- Support the efforts of governmental conservation agencies and non-governmental organizations to conserve, acquire, and provide incentives to private landowners to conserve waterways and adjacent lands.
- Volunteer to participate in habitat management activities on lands where agencies, groups, or individuals are interested in managing for freshwater mussels or improved water quality.
- Share your concerns with U.S. Fish & Wildlife Service, state natural resource agency staff, and other conservation agencies so that we can address them in the process of planning for freshwater mussel recovery.

11. Where can I learn more about these mussels and efforts to conserve them?

For more information about the rayed bean, sheepnose, or spectaclecase mussels and ongoing conservation efforts, visit the Service's website at http://midwest.fws.gov/endangered or contact one of the following offices:

In Illinois U.S. Fish and Wildlife Service 4469 - 48 th Avenue Court Rock Island, Illinois 61201 (THIS OFFICE ALSO COVERS IOWA)	Jody Millar jody_millar@fws.gov Assistant Field Supervisor	(309) 793-5800, Ext. 524 FAX: (309) 793-5804
In Indiana U.S. Fish and Wildlife Service 620 S. Walker Street Bloomington, Indiana 47403-2121	Lori Pruitt lori_pruitt@fws.gov Endangered Species Coordinator	(812) 334-4261, Ext. 211 FAX: (812) 334-4273
In Michigan U.S. Fish and Wildlife Service Suite 101, 2651 Coolidge Road East Lansing, Michigan 48823	Mike DeCapita mike_decapita@fws.gov Endangered Species Coordinator	(517) 351-6274 FAX: (517) 351-1443
In Minnesota U.S. Fish and Wildlife Service 4101 E. 80th Street Bloomington, Minnesota 55425-1665	Susan Rogers susan_rogers@fws.gov Endangered Species Coordinator	(612) 725-3548, Ext. 219 FAX: (612) 725-3609
In Missouri U.S. Fish and Wildlife Service Room 200, 608 East Cherry Street Columbia, Missouri 65201-7712	Andy Roberts andy_roberts@fws.gov Endangered Species Coordinator	(573) 876-1911, Ext. 110 FAX: (573) 876-1914
In Ohio U.S. Fish and Wildlife Service 6950 Americana Parkway, Suite H Reynoldsburg, OH 43068-4127	Angela Zimmerman angela_zimmerman@fws.gov Endangered Species Coordinator	(614) 469-6923, Ext. 22 FAX: (614) 469-6919
In Wisconsin U.S. Fish and Wildlife Service 2661 Scott Tower Drive New Franken, Wisconsin 54229	Cathy Carnes cathy_carnes@fws.gov Endangered Species Coordinator	(920) 866-1732 FAX: (920) 465-7410